

# BLOCK-ITERATIVE EQUALIZERS FOR DIGITAL COMMUNICATION SYSTEMS

## ABSTRACT OF THE DISCLOSURE

- 5        A block-iterative equalizer is adapted for use in contemporary digital communication system receivers. In a preferred embodiment, data received over a communication channel is processed by a linear feed-forward filter and the resulting filtered signal is provided to a slicer which makes a first set of tentative symbol decisions. During later iterations, the same received data is processed by the linear  
10      feed-forward filter, the feed-forward filter parameters being modified at each iteration based on the received data and the tentative decisions are themselves filtered by a second, "feed-back" filter and used to improve the tentative decisions.